



(74) Agents: VINCENT, Matthew, P. et al., Foley, Hoag & Eliot, LLP, One Post Office Square, Boston, MA 02109 (US).





WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT) (51) International Patent Classification 6: WO 99/38501 (11) International Publication Number: **A2** A61K 31/00 (43) International Publication Date: 5 August 1999 (05.08.99) PCT/US99/02294 (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, (21) International Application Number: BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, (22) International Filing Date: 2 February 1999 (02.02.99) GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, (30) Priority Data: ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, 60/073.409 2 February 1998 (02.02.98) US ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (71) Applicant (for all designated States except US): TRUSTEES OF TUFTS UNIVERSITY [US/US]; Tufts University, Med-(BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, ford, MA 02155 (US). SN, TD, TG). (72) Inventors; and (75) Inventors/Applicants (for US only): BACHOVCHIN, William, **Published** W. [US/US]; 7 Warwick Street, Melrose, MA 02176 (US). PLAUT, Andrew, G. [US/US]; 22 Peacock Farm Without international search report and to be republished upon receipt of that report. Road, Lexington, MA 02421 (US). DRUCKER, Daniel, J. [CA/CA]; 19 Fernwood Road, Toronto, Ontario M6B 3G3

(54) Title: METHOD OF REGULATING GLUCOSE METABOLISM, AND REAGENTS RELATED THERETO

(57) Abstract

(CA).

The present invention provides methods and compositions for modification and regulation of glucose and lipid metabolism, generally reduce insulin resistance, hyperglycemia, hyperinsulinemia, obesity, hyperlipidemia, hyperlipoprotein—emia (such as chylomicrons, VLDL and LDL), and to regulate body fat and more generally lipid stores, and, more generally, for the improvement of metabolism disorders, especially those associated with diabetes, obesityand/or atherosclerosis.

Spag